

**REMARKS/ARGUMENTS**

Claims 20-62 are pending and have been added. Claims 1-19 have been canceled. No claims have been allowed.

Responsive to the Examiner's objections regarding minor informalities and duplicate claims, as well as the Examiner's rejection of prior Claims 2-19 under 35 U.S.C. §112, second paragraph, Applicant has submitted herewith new Claims 20-62. New Claims 20-38 correspond substantially to former Claims 1-19. Claims 39 and 52 are newly submitted independent claims.

The Examiner rejected prior Claims 1-17 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,531,486 to Reif et al. The Examiner further rejected prior Claims 18 and 19 under 35 U.S.C. §103 as being obvious in view of Reif et al. '486.

Reif et al. '486 discloses an apparatus 10, shown in Fig. 1, for measuring the concentration of particles in a gas. Apparatus 10 includes cylindrical conduit 14 through which air flows from air filter 16 to a gas receiving device, such as engine 18. Electrode 20 is disposed within conduit 14, and may take any of the forms shown in Figs. 2-5. Apparatus 10 "depends for its operation upon the flow of charged particles along the conduit [14]". (col. 6, lines 3-4). Specifically, the flow of air containing charged particles through conduit 14 and around electrode 20 induces a charge on electrode 20 which can be measured by a sensitive electrometer. In this manner, electrode 20 of apparatus 10 only detects the flow of *charged* particles through conduit 14. If apparatus 10 is used in environments in which the particles in the air stream flowing along conduit 14 are not naturally charged to a degree sufficient to ensure proper operation of apparatus 10, apparatus 10 may optionally include ionizer assembly 40 to charge the particles, shown in broken lines in Fig. 1. (*see* col. 8, lines 3-9).

Independent Claims 20, 39, and 52 each call for a safety vacuum cleaner including a housing with an air passage, a turbine rotatable to move an air stream through the air passage, the air stream containing particles, with at least a portion of the air passage (Claim 20) or the turbine (Claims 39 and 52) electrically grounded such that electrical charges associated with the particles are removed upon contact with the air passage or turbine, and at least one electrode disposed within the air passage and conducting electrical current in response to

contact with uncharged particles and emitting a measurement signal indicative of the amount of particles in the air stream.

Applicant respectfully submits that independent Claims 20, 39 and 52 are not anticipated by, nor obvious in view of, Reif et al. '486 because that reference fails to disclose each and every limitation of independent Claims 20, 39, and 52. Specifically, Reif et al. '486 fails to disclose a vacuum cleaner having an air passage or a turbine which is electrically grounded such that air particles passing therethrough loose their charges upon contact with the air passage or turbine, and an electrode disposed within the air passage which, upon contact with the uncharged particles, conducts an electrical current and emits a measurement signal indicative of the amount of particles in the air stream.

By contrast, the apparatus of Reif et al. '486 includes an electrode which detects only *charged* particles within an air stream. To the extent that the particles may not be naturally charged, an ionizer may be provided in the Reif et al. '486 apparatus to charge such particles before they reach the electrode. Thus, the vacuum cleaner claimed in independent Claims 20, 39, and 52 includes an electrode which detects *uncharged* particles in an air stream while the apparatus of Reif et al. '486 contains an electrode which detects *charged* particles in an air stream. For the foregoing reasons, Applicant respectfully submits that independent Claims 20, 39, and 52 are not anticipated by, nor obvious in view of, Reif et al. '486.

Further, because Claims 21-38, 40-51, and 53-62 each depend from independent Claims 20, 39, and 52, respectively, Applicant further submits that Claims 21-38, 40-51, and 53-62 are also not anticipated by, or obvious in view of, Reif et al. '486.

It is believed that the above represents a complete response to the Official Action and reconsideration is requested. Specifically, Applicant respectfully submits that the application is in condition for allowance and respectfully requests allowance thereof.

In the event Applicant has overlooked the need for an additional extension of time, payment of fee, or additional payment of fee, Applicant hereby petitions therefore and authorizes that any charges be made to Deposit Account No. 02-0385, Baker & Daniels.

Application Serial No. 09/869,614  
Amendment dated September 9, 2003  
Reply to Office Action dated April 11, 2003

Should the Examiner have any further questions regarding any of the foregoing, he is respectfully invited to telephone the undersigned at (260) 424-8000.

Respectfully submitted,



Adam F. Cox  
Registration No. 46,644

Attorney for Applicants

AFC/mt

BAKER & DANIELS  
111 East Wayne Street, Suite 800  
Fort Wayne, IN 46802  
Telephone: 260-424-8000  
Facsimile: 260-460-1700

Enc. Return Postcard

CERTIFICATION OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on: September 9, 2003

ADAM F. COX, REG. NO. 46,644

Name of Registered Representative



Signature

September 9, 2003

Date